

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: DAVEAF5U@aol.com
Subject: [5108] Arizona QRPers
Message-ID: <951105010519_13154898@mail02.mail.aol.com>

The ScQRPions (AZ QRPers) will meet Saturday Nov 11 @ 10AM in Denny's on Camelback and 7th Street. You are requested to bring any homebrew QRP rigs or related equipment to show the group.

There are no officers or dues. We are simply a group of QRPers who desire to find out what others are doing and to become more involved in this facet of amateur radio. Who says hams don't build any more?

David Little, AF5U
602-661-1187 home
602-437-9767 work

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Marshall Emm <75230.1405@compuserve.com>
Subject: [5105] CMOS III Help Wanted!
Message-ID: <951105041157_75230.1405_HHB41-1@CompuServe.COM>

A big feature for the day was coming home from the CQC meeting to find that my CMOS III kit had arrived from Idiom Press. Kit contents: a 24 page operating guide and tutorial and a bag containing the board and components. That's it. No assembly instructions and no parts list. The ONLY mention of construction is in the first sentence of the tutorial, which reads "This [documentation] presumes you wired the six memory buttons as per the construction article..."

Construction article? Well, I dug out the article in QST August and all that it added in terms of useful information was a circuit diagram with component values on it (no values shown on the one in the manual).

First and most obvious question, did they leave something out of the package?

Looking at the board and the diagram in QST, I think I can probably put it together, but to do so I have to make three assumptions. I'd rather ask you guys for help than make ANY assumptions. So if someone could either confirm or contradict these...

1. The Y1 resonator has three pins and could go in either way. Am I safe in assuming it is not polar and can in fact be inserted either way?
2. If you look at the holes between the big IC and ground, where you are supposed to connect 1 resistor, 1 cap, and the pushbutton switch, there are 5 holes. Am I correct in assuming the middle hole is used for the "hot" side of

the switch, and all switches have a common wire back to ground (i.e. the hole marked "gnd" on the board)?

3. The screening for the transistors Q1 and Q2 looks something like this:

```
 /--|  
|   |  
 \__|
```

That's not terribly accurate, but it's meant to represent a rectangle with two corners lopped off on a long side. The transistors themselves are round with a flat side-- can I assume that the flat side of the case should be oriented toward the longer, "un-lopped" side of the rectangle?

Apart from these questions I think the rest is pretty much idiot proof, and maybe I am being overly insecure, but a recent spate of construction problems has taught me to err on the side of caution [g].

Any help appreciated!

73

Marshall, AA0XI

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Marshall Emm <75230.1405@compuserve.com>
Subject: [5107] CMOS III Help Wanted! (Outbox)
Message-ID: <951105051119_75230.1405_HHB33-1@CompuServe.COM>

A big feature for the day was coming home from the CQC meeting to find that my CMOS III kit had arrived from Idiom Press. Kit contents: a 24 page operating guide and tutorial and a bag containing the board and components. That's it. No assembly instructions and no parts list. The ONLY mention of construction is in the first sentence of the tutorial, which reads "This [documentation] presumes you wired the six memory buttons as per the construction article..."

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First and most obvious question, did they leave something out of the package?

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Apart from these questions I think the rest is pretty much idiot proof, and maybe I am being overly insecure, but a recent spate of construction problems has taught me to err on the side of caution [g].

Any help appreciated!

73

Marshall, AA0XI

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995

From: elly@epix.net

Subject: [5097] cw sweepstakes.

Message-ID: <Pine.SUN.3.91.951104153758.17875A-100000@mango.epix.net>

OF ALL THE CALLS LISTED FROM MAY 1995 QST SWEEPSTAKES QRPERS I FOUND 14 LISTED IN THE SUBSCRIBER LIST. LIST DOWNLOADED THIS PAST WEEK. THATS ANYONE WHO HAS THEIR CALLSIGN ON THE LIST.
KE3IK HANK

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995

From: Jay Hall <jaydhall@everest.iccy.com>

Subject: [5100] Fox

Message-ID: <95Nov4.112935mst.17032@gabriel.incc.net>

I have read that the novice and tech + area (7110) should be used only by novices and tech +. The other guys should get them at 7040. Well I may have my advanced ticket but I can assure you that my code speed is at novice levels. I certainly attempt to work the fox at 7040. But if I hear him at all I try to work him. I admit I have only heard the fox on non novice bands _once_. I do believe I heard the fox more than that but I could not tell! There have been QSO's that were a bit fast for my puny skills. So there. If the fox does not answer me, I guess I will take the hint. But until then I will try anywhere I hear him. Sheesh. I really appreciate the two that did come back to my signal. Thanks guys!

I do believe my code has improved a lot because of the fox hunt. It is so much darn fun I sit there and _sweat_ through the QSO's to find out if it is the fox or not. I love it!

Now that I read that K5FO is going to be the fox, I am sweating already. I am not sure Chuck can send as slow as I copy! This one will be interesting! Hope to hear you all on!

Jay WA6MOK

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Paul@p-elliott.demon.co.uk (Paul Elliott)
Subject: [5098] FT990 QRP
Message-ID: <614@p-elliott.demon.co.uk>

Thanks all,

for the replies to my request for info on QRPing the YEASU FT990. John Krzymuski <John@radvan.demon.co.uk> suggested modification by reducing the value of the resistor in series with the Power pot, and this certainly seems to do the trick.

Several people suggested driving a voltage into the ALC socket. whilst this worked for a while on my rig the power level did drift quit a bit (down to 500mW from 5W). I was monitoring the ALC volts with a DVM and it appeared very stable throughout. If this could be made to work it does have the advantage of not requiring any internal mods. I'm looking at generating the ALC from the output to see if this improves matters (it is what the input is for I suppose).

Anyway thanks for all the replies (Sorry if I missed answering any)

--

Paul Elliott (G0TXL)

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Mike.Czuhajewski@bbs.abs.net (Mike Czuhajewski)
Subject: [5104] Good mixer thread on USENET
Message-ID: <1995Nov04.224308.9359@abs.net>

Forgive me if this has already been mentioned on the list, but I'm STILL running about two weeks behind on reading the daily digest! If you have access to USENET, go to rec.radio.amateur.homebrew and do a search of subject lines for the word "mixer". There has been a lot of discussion on the subject recently--I finally got smart and decided to capture the whole mess to disk before my host has a head crash and loses it all, and I downloaded 25 postings. Lots of good comments on the subject, much of it highly technical, and a lot of it from people who I consider highly knowledgeable. (I'm not that familiar with threaded news readers, but you might miss some of the postings if you simply follow threads. Some of the subject lines are different and I'm not sure whether they are all threaded or two or three different threads.) 73 and Queue Our Pea DE WA8MCQ wa8mcq@bbs.abs.net
--

Mike Czuhajewski, user of the UniBoard System @ abs.net
E-Mail: Mike.Czuhajewski@bbs.abs.net
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Craig LaBarge <74740.3166@compuserve.com>
Subject: [5099] LISTSERV Help
Message-ID: <951104205503_74740.3166_EHB64-1@CompuServe.COM>

Sorry for the bandwidth, but what is the listerv command to change from receiving qrp-1 in digest form to receiving individual postings?

73, Craig WB3GCK

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: markem@primenet.com (Mark Monninger)
Subject: [5106] Low Power Out on Cascade
Message-ID: <199511050431.VAA16049@usr6.primenet.com>

I have my Cascade together and it seems to work OK except that the power

output is pretty low. A steady tone into the mike yields about 3W max out on 80M and about .75W max on 20M, measured on an OHR QRP wattmeter into a 50 ohm dummy load. Q8 gets warm but Q7 seems to stay cool. I can't find any wiring errors. Any suggestions where to start looking? What are others seeing for power output?

Thanks & 73.... Mark AA7TA

From qrp-l@lehigh.edu Sun Nov 5 14:39:00 1995
From: Craig LaBarge <74740.3166@compuserve.com>
Subject: [5094] New QRP Operating Awards
Message-ID: <951104143358_74740.3166_EHB120-1@CompuServe.COM>

My on-the-air QRP buddy, AA3LM, sent me a copy of the announcement below. I'm passing it along to the QRP-L for whatever interest folks may have in this. Colin's certificates are real nice. I have two: worked 25 states and worked 25 countries. Both are endorsed with: 3 watts CW into a rainspout. :-)

Comments or questions should be directed to Colin, AA3LM.

73, Craig WB3GCK

NEW QRP OPERATING AWARDS (sponsored by AA3LM)

These awards are designed to encourage QRP operators by recognizing their significant accomplishments in two-way low power communications.

AWARDS AVAILABLE:

Worked 25 States	Worked 50 Countries
Worked All 50 States	Worked 100 Countries
Worked All 6 Continents	Worked 200 Countries
Worked 25 Countries	Worked 300 Countries

GENERAL REQUIREMENTS:

This is an "on-your-honor" awards program, because the sponsor believes that hams are honest and QSLing is becoming too expensive. If you made the contact, you can count it for these certificates. Cards or lists are NOT required.

QRP for these awards is not more than 5 watts CW or 10 watts PEP SSB.

To receive a certificate, send a letter stating that you have made the QRP contacts required for the specific award. Include your name, call, mailing address, and \$1.00 for each certificate requested.

Please specify any requested mode or band endorsements (CW, SSB, QRPp, Wire Antennas, specific band, specific power level, etc.) in your letter. Multiple endorsements can be listed on your certificate. An example would be: CW with 2 watts on 20 Meters.

Mail to QRP Operating Awards, Colin Neal - AA3LM, 264 Miner Street, Malvern, PA 19355.

The certificates are printed on 8.5 x 11 inch colored parchment paper, and are folded for mailing in a 4 x 9 inch envelope. The two folds can be easily smoothed out for display.

I will try to mail your certificate within a few days of receiving your letter.

72,

Colin Neal - AA3LM

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: bmitchel@cba.kodak.com (Brad Mitchell)
Subject: [5095] PM series revisited.
Message-ID: <9511041626.AA05609@iiatasun.cba.Kodak.COM>

I saw some recent stuff on the PM series, and thought that I might blast out the write up I did a while back again.
I hope this is of some use to you all, and not too redundant.
regards, Brad Mitchell WB8YGG

A Ten Tec experience by Brad Mitchell WB8YGG 6/94. Feel Free to republish, email ftp etc. as long as everything is intact and not modified.

I really never know what inspires me, but things sometimes just happen. I got a phone call, and a friend on the other end of the line said that he had bought a TEN TEC Power Mite 3A QRP CW transceiver

to close a deal for some sort of bag pipe practice instrument, and the deal fell through. Well he had paid \$100.00 for the rig, and he was wondering what he could get for it if he just sold it. I offered to post on internet, as I did, and find out. At the same time, I was curious, because he kept telling me how good of condition this rig was in.. I've heard that before. Well, the story goes that he ended up bringing the rig over that night, and as he did my eyes got wider and wider... It looked like he had just bought the rig, it was still in the box with the plastic around it and all! That's when it bit me, and by the end of the evening we had made a swap that made me very happy and him as well.

Now being curious as I am, I wanted to know more about the rig! I figured it was old, but how old. It looked like it was made yesterday, but I knew they were around for a long time because every one I had seen before looked like it was in bad shape from age, and neglect.

I posted to internet, packet, and communicated with TEN TEC direct, and here's what I found out:

First The PM3A was one of a series of Power Mites starting with the PM1, but just prior to that the circuit boards for the PM series were sold as assembled modules, 4 in all to make what was called the MR1 Transceiver. SO that's where the story starts..

Somewhere around 1969 the MR1 modules were introduced. Popular Electronics, from January, 1969 has the first entry of advertisement that TEN TEC knows about anyway. These Modules (4 in all) were what comprised a complete 80 and 40 meter band transceiver. They were sold specifically to mount on a breadboard, of which their ads say a 10" x 8" x 1" board would be sufficient. It must not have been very long after the introduction of the MR series that TEN TEC introduced the PM1, PM2, PM3, and PM3A.

April, 1970 QST shows these rigs in a common add. The PM1 and PM2 are basically the same rig, with the PM-1 being less case, advertised for \$49.95 in 1970, and the PM2 for \$59.95.

The PM1, and PM2, as well as the MR1 were for 40 and 80 meters, and offered cw transceive with approximately 2 watts input. One of my schematics references the PM2A that appears to have a sidetone circuit where the PM2 does not. I could not find reference to the PM2A advertised price.

The PM3 and PM3A were for the 40 and 20 meter bands, and offered 5 watts input power. The PM3 in 1970 was advertised for \$69.95 while the PM3A was advertised for \$79.95. The main difference between the 3, and the 3A being a built in T/R switch in the 3A, who knows maybe the start of a trend.

Receiver for the PM series were all direct conversion with 40604 dual gate mosfets for the D.C. mixer, protected from RF from the transmitter by back to back diodes, followed immediately by a 2KHz audio filter. A pretty basic receiver, but "One of the hottest receivers of simple design that one can find" according to a 1970 QST review of the PM2.

The cases for the PM series were the traditional Ten Tec case with the metal top and bottoms, and simulated wood grain on the ends. The scale was the traditional pointer dial on the front panel. This was relatively un protected from the elements, and I'm surprised to see these with the pointer in tack at all. The phone output is 2000 ohms pin jack, and is a sign of the age of this equipment.

According to Ten Tec the MR1 and PM series are Tec Tec's FIRST radios that they produced, Followed immediately by the Argonaut 505 which pretty much ended the PM series. My opinion of the rig is that because it is the first rig that Ten Tec Produced, and Ten Tec being an American company, that these rigs are very collectible. It's not quite as small as the HW series, but the PM3A is my first commercial QRP transceiver, and it looks nice in the shack!

Operation of my PM3A has been great. I have to use a lower antenna than my large dipole if I do not want too much AM detection, but I have had many successful contacts with the rig since I acquired it. The 20 meter reception seems that it could use a pre-amp, but other than that, the rig performs quite nicely.

Below I have listed the MR series of modules that Ten Tec advertised in 1969. Sure wish I could get something for these prices today.

=====

All 4 MR1 Modules , (Basic Tuning dial, instructions for bread boarding and interconnecting, Modules wired , \$29.95

MX1 Syncrodyne Detector-converter uses dual gate MOSFET for high performance. Selectivity 1kHz. \$7.95

AA1 IC audio amplifier 100 dB gain. Response shaped 200-2500Hz. Drives High Impedance headphones. \$7.95

V01 40-80 meter oscillator-buffer. 2 volts output. Designed for use with MX1 or TX1. \$7.95

TX1 Crystal oscillator and power amplifier for 40-80 meters. Requires 12 VDC, 250ma supply. Torroidal Coils. \$7.95

Accessories:

AC1 Convenience Kit for MR1. Amplifier, current meter, antenna switch, knob and connector. \$7.95

AC2 Oscillator Monitor or sidetone. 8 ohm output. For speaker or phones.
6VDC @ 50ma \$5.95

AC3 Converts 21 MHz band to 3.5 MHz. Free running injection oscillator.
Dual gate MOSFET. 12 VDC @ 8 m.a. \$8.95

AC4 Low Power SWR meter. Usable from 1/2 to 250 watts. \$14.95

AC5 Low Power Antenna Tuner. Matches random length twin lead or open
line fed antennas.

=====
I guess it goes without saying that a complete vintage PM station would not
be complete without the KR-1 Keyer, the the AC4 swr meter, and the
AC5 antenna tuner. I guess I'll keep my eyes open come next hamfest.
I Wish to thank everyone on internet who helped with information,
Paul Clinton at Ten Tec, and Anthony Luscre KA8NRC for all the information
that I received to put things in perspective.
73 Brad WB8YGG

References:

MR-1 Product Release
Advertisement April, 1970 QST
PM2 Product Release
PM3 Product Release
PM2 Recent Equipment , June, 1970 (W1CER)
PM2/2A Manual
PM2/2A schematic
PM3/3A schematic
PM3/3A Manual
Advertisement Sept, 1970 CQ magazine

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Dale Hall <102603.30@compuserve.com>
Subject: [5102] Power supply and headphones needed
Message-ID: <951104225108_102603.30_HHU57-1@CompuServe.COM>

I am in need of a 13.8 volt, 2 amp, well regulated power supply. If you have a
12 volt, 2 amp, regulated power supply that can be adjusted up to 13.8 volts,
that is OK.

I also am in need of a decent set of "communication" headphones. They should be
comfortable; not the plastic earpiece type. Those are not comfortable.

de Dale KB0WZ

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Allen Jones <ajones@adsnet.com>
Subject: [5096] Radio Shack Digital SWR/Pwr Meter
Message-ID: <199511041845.MAA20528@alice.adsnet.com>

Gang . . . One of the locals, Ron, NT9T purchased the new Radio Shack digital SWR/PWR meters #21-527 and asked me to check it against my Bird 43P. This is a new item and was on sale during the month of October for \$90. Regular price is \$120.

I used my Icom 736 as an RF source. I can control power down to 2.5W from the front panel. I use the Bird mainly for my VHF and UHF weak signal work and the lowest freq range slug I own is for 25 to 60 MHz so all the testing was done on 10 meters. I have both a 25W and a 100W slug for that range. The accuracy of the 43P is rated at +/- 5% of full scale. The Radio Shack is rated +/- 10% of full scale. My results are as follows:

Using Bird 25W FS element:

Bird 43P -----	Radio Shack -----
5W	5.4W
10W	11.1W
15W	16.75W
20W	21.4W
25W	26W

Using Bird 100W FS element:

Bird 43P -----	Radio Shack -----
40W	43.1W
50W	55.2W
60W	65.4W
70W	76W
80W	85W
90W	95.7W
100W	104W

OK, so much for QRO power levels. How does it work on QRP?

I compared the Radio Shack to my Oak Hills WM-1 which was calibrated per the manual using a Fluke 77. I have never compared the OHR to another meter of known accuracy. I compared the two meters at levels of 2.5 to 10W and readings were almost identical. I hooked up my SW-40 which showed 1.25W on the Radio Shack and about the same on the OHR. I did not make any comparisons at milliwatt power levels.

The Radio Shack meter has three power ranges that can be auto selected. 0-20W, 0-200W and 0-2000W. It has a remote pickup head. It automatically computes SWR and will read peak power. I did not check either of those functions. It comes with a small "wall wart" power supply. The LCD is backlit.

All in all I am favorably impressed by the meter. Unfortunately, the sale is over but you may still be able to get a break from some of the independant RS dealers.

BTW, the RS meter is only rated to 30MHz but I tried it on 6M anyway. At 100W out, according to the Bird, the RS read 83W.

I am not an employee of nor do I have a financial interest in Tandy Corp., etc., etc.

72 de Allen, K9DZE

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Dave Hockaday <wb4iuy@nando.net>
Subject: [5101] sscontest on qrp
Message-ID: <9511042213.AA08968@merlin.nando.net>

I just took a short break from the fun on 40 meters. I haven't been active on qrp since the late 70's, but have had an interest. I'm working the SS contest today with my Heathkit twins (sb-301 rx and sb-401 tx). The tx is set at about 4 watts...the plate current actually goes down from the idle level when I close the key, heehee...never seen it do that before. Anyway, my new array of 3 selectable slopers for 40 meters at 95 feet seems to really be paying off...I think I'll continue to work the contest at this level and see what happens.

73 de Dave WB4IUY
PS...maybe see some of you in the test!

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: Dale Hall <102603.30@compuserve.com>
Subject: [5110] Tuner needed
Message-ID: <951105141745_102603.30_HHU48-1@CompuServe.COM>

In my post yesterday I forgot to say I am also in need of a small T match type tuner. It only needs to be a very basic tuner, i.e., no meter, no antenna switch, etc.

de Dale KB0WZ

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: aa7qy@primenet.com (Roger Hightower)
Subject: [5103] Re: LISTSERV Help
Message-ID: <199511042255.PAA25067@usr4.primenet.com>

At 03:57 PM 11/4/95 EST, Craig LaBarge wrote:

>Sorry for the bandwidth, but what is the listerv command to change from
>receiving qrp-1 in digest form to receiving individual postings?

>

>73, Craig WB3GCK

>

>

>

In the body of the msg, type SET QRP-L MAIL ACK and that should do it.

72, de Roger, AA7QY

From qrp-1@lehigh.edu Sun Nov 5 14:39:00 1995
From: tmh@world.std.com
Subject: [5109] Re: Low Power Out on Cascade
Message-ID: <Pine.3.89.9511050923.D5163-0100000@world.std.com>

On Sat, 4 Nov 1995, Mark Monninger wrote:

> I have my Cascade together and it seems to work OK except that the power
> output is pretty low. A steady tone into the mike yields about 3W max out on
> 80M and about .75W max on 20M, measured on an OHR QRP wattmeter into a 50
> ohm dummy load. Q8 gets warm but Q7 seems to stay cool. I can't find any
> wiring errors. Any suggestions where to start looking?

I have the same problem as Mark-- I know the power output is very low
(NOBODY can hear me, though I put a nice signal into a receiver in my shack).

I'd be great if somebody in-the-know jot down some "things to tweak" that
can affect output power.

Thanks in advance for any help.

--Tim

| Timothy Huntington, N1PAZ |
| President, Boston Amateur Radio Club |
tmh@world.std.com